

Merbenit MB 55 is a permanently elastic adhesive and sealant on the basis of MS-Hybrid polymer. Specially developed for bonding in boat/ship sector, as for example fittings, skirting boards, skylights, winches and coatings as well as for dynamically loaded connections. Merbenit MB 55 is vibration-debilitating and balancing tolerance. Quick and high initial adherence adheres also on moist surfaces (except on wood).

Product advantages:

- 1-component, easy processing
- Short threading
- Free of solvents, isocyanate and silicones
- Very wide spectrum of adherence, also without primers
- Can be applied also on moist surfaces (except wood)
- Nearly odourless
- Paintable (also wet on wet)
- For powder- or thermo varnishing, stable on a short-term basis up to +200 °C
- Stable (thixotropic) up to a width of joint of 40 mm
- Corrigible
- Slit- and crack-bridging
- Compatible with grinding and varnishing
- Permanently elastic from -40 °C to +90 °C
- High mechanical firmness
- Very good sealing abilities
- Very good weather- and ageing resistance
- High resistance against water, salted water, aliphatic solvents, oils, fat, watered inorganic acids and alkalis
- Non corrosive on surfaces
- Corrosion protecting
- Shock-proof and vibration-firm (shock-absorbent)
- Good compatibility with other chemical and technical products, like epoxy and polyester, no hardening troubles

Processing:

- Merbenit MB 55 can be applied directly from the cartridge / sausage (manual or compressed air gun) as a rounded or triangular caterpillar in stripes. If one side of the material is permeable to diffusion, Merbenit MB 55 can also be applied dimensionally with a spatula.

■ **Examples for flexible adhesion applications:** Skylights, skirting boards, winches, tubes, signs, strips, diagonal braces, profiles, stiffening, fixtures, fittings, plates, sheet metals, receptacles, boxes, cabins, disguises, sandwich components, containers, constructions, bottom covers, frames, panels, coverings, shields, cuffs, nosing and protection joints.

Fields: Ship building, metal-, apparatus-, machine building, electro-, plastic, ventilation and climate technique, automotive-, freight car-, vehicle-, container construction.

■ **Well suitable materials are for example:** Steel, high-grade steel, aluminium, alu-anodized, brass, glass, acrylic glass, ceramics, stone, concrete, ABS (possible primers), PBT, PVC hard and soft, PPE, PA6.6-30, EPDM, GFK, wood, powder-coated, coated, galvanized, chromalized and pot-galvanized surfaces.

With materials which tend to stress-cracks, a preliminary investigation is recommended.



Technical datas | Merbenit MB 55

CHEMICAL BASE

- Permanently elastic, moisture curing, one-component adhesive and sealant based on MS hybrid polymer.

TECHNICAL DATAS

Product name	Merbenit MB 55
Colours	white, grey, black
Processing temperature with 50 % rf	+5 °C up to +40 °C
Volume change DIN 52451	approx. 5 %
Consistency	very thixotropic
Density at +23 °C	1.52 +/- 0.03 g/cm ³
Skin forming time with +23 °C, 50 % rf	approx. 5 to 10 minutes
Curing through after 24 hours, +23 °C, 50 % rf	> 2.5 mm
Temperature resistance after curing	-40 °C up to +90 °C, short-time up to +200 °C
Shore A hardness, DIN 53505, after 3 weeks storage with +23 °C and 50 % rf	55 +/- 3
Modulus elongation at 100 % and +23 °C, DIN 53504 S2, storage during 7 days at +23 °C and 50 % rf	approx. 1.1 N/mm ²
Tensile strength DIN 53504 S2, storage during 7 days at +23 °C and 50 % rf	approx. 2.3 N/mm ²
Elongation an break DIN 53504	> 400 %

CHEMICAL RESISTANCE

- Good: against water, aliphatic solvents, oils, fats, watered inorganic acids and alkalis
- Moderate: against esters, ketone and aromatics
- Not resistant: against concentrated acids and chlorinated hydrocarbons
- Completely weather resistant

PRIMER

- With many clean material surfaces a good liability also without primers is achieved. However, should be checked always, whether a strong media- and moisture-load influence on the cross-linked polymer and material. In this case and by near porous as well as difficult surfaces we recommend always the use of a suitable primer.

SURFACE TREATMENT

- The surface has to be stable, clean, strong, dust-, oil- and fat-free. Acetone or Isopropanol show good results.

STICKING-SLIT

- Optimal sticking-slits measure between 1 - 6 mm according to surface to be bonded, material extension, tension and mechanical load.

POWDER DEPOSITION AND COATING-PROCESSES

- Merbenit MB 55 can be exposed to increased temperatures at short notice after the curing. At ours attempts at +200 °C, 10 minutes or +180 °C, 30 minutes, no destruction of the polymer could be found. In the case of wet spraying attempts watery acrylic varnishes have shown a good liability and varnish picture. Sufficient pre-tests for both processes are recommended.

CLEANING

- Cleaning of not cured sealant: immediately with grain paper and Isopropanol.

Cleaning of cured sealant: mechanically.

SMOOTHING OF THE JOINT

- We recommend before the stripping of the Merbenit Hybrid MS to use joint soapy solution.

STORAGE

- In original packaging well closed, dry, protected from light and cool, twelve month storable.

PACKAGING FORMS

- 290 ml cartridge, 600 ml sausages, 20 L hobbocs, 180 L drums

DOSAGE

- A fully automatic proportioning is possible.

WORK AND ENVIRONMENTAL SECURITY

- No dangerous goods, not marking-liable. Important information about work and environmental security you take disposal from the security data sheet please.

Our information is based on experiences in lab and practice. Their publication occurs, however, without takeover of a liability for damages and losses which are to be put down to these information, there the practical application conditions lying outside of the control of the enterprise. The user is not released from the necessity, to carry out own attempts for the planned applications under practical conditions. Due to the different materials, processing methods and local factors, onto which we have no influence have, no guarantee- also in patent-legal respect -can be taken over. We recommend therefore sufficient own attempts. By the way we refer to our General Business Conditions. Technical changes reserved. Contents examined and released by merz+benteli ag, CH - Niederwangen/Berne